

RP SEQUENCE FROM N.A.
RA Chumakov P.M., Almazov V.P., Jenkins J.R.;
RL Submitted (JUN-1991) to the EMBL/GenBank/DBJ databases
RN [9]
RP SEQUENCE FROM N.A.
RA Rozenmiller E.H., Tilanus M.G.J.;
RL "p53 genomic sequence. Corrections and polymorphism.";
RN Submitted (MAR-1997) to the EMBL/GenBank/DBJ databases
RN [10]
RP SEQUENCE FROM N.A.
RA Anderson C.W., Kleczkawa J., Allalunis-Turner J.;
RL "Human p53 from the malignant glioma-derived cell lines M059J and
RT M059K have a cancer-associated mutation in exon 8."
RN Submitted (MAR-1999) to the EMBL/GenBank/DBJ databases.
RN [11]
RP ALTERNATIVE SPLICING.
RX MEDLINE-96197761; PubMed-8632903;
RA Flaman J.-M., Waridel F., Estreicher A., Vannier A., Limacher J.-M.;
RL "Human p53 from the malignant glioma-derived cell lines M059J and
RT M059K have a cancer-associated mutation in exon 8."
RN Submitted (MAR-1999) to the EMBL/GenBank/DBJ databases.
RN [12]
RP NUCLEAR LOCALIZATION SIGNAL.
RX MEDLINE-90191730; PubMed-2156209;
RA Addison C., Jenkins J.R., Sturzbecher H.-W.;
RL "The p53 nuclear localisation signal is structurally linked to a
RT p34cdc2 kinase motif."
RN Oncogene 5:423-426(1990).
RN [13]
RP MINIMAL REPRESSION DOMAIN.
RX PubMed-11007800;
RA Hong T.M., Chen J.J., Peck K., Yang P.C., Wu C.W.;
RL "p53 amino acids 339-346 represent the minimal p53 repression
RT domain."
RN J. Biol. Chem. 276:1510-1515(2001).
RN [14]
RP PHOSPHORYLATION BY p50/CDC2 AND CYCLIN B/CDC2.
RX MEDLINE-90280456; PubMed-2141171;
RA Bluschoff J.R., Friedman P.N., Marshak D.R., Prives C., Beach D.;
RL "Human p53 is phosphorylated by p50-cdc2 and cyclin B-cdc2."
RN Proc. Natl. Acad. Sci. U.S.A. 87:4766-4770(1990).
RN [15]
RP DEPHOSPHORYLATION BY PP2A.
RX MEDLINE-91172186; PubMed-1848568;
RA Scheidtmann K.H., Mumby M.C., Rundell K., Walter G.;
RL "Dephosphorylation of simian virus 40 large-T antigen and p53 protein
RT by protein phosphatase 2A: inhibition by small-t antigen."
RN Mol. Cell. Biol. 11:1996-2003(1991).
RN [16]
RP O-GLYCOSYLATION.
RX MEDLINE-96197773; PubMed-8632915;
RA Shaw P., Freeman J., Bovey R., Iggo R.;
RL "Regulation of specific DNA binding by p53: evidence for a role for
RT O-glycosylation and charged residues at the carboxy-terminus."
RN Oncogene 12:921-930(1996).
RN [17]
RP STRUCTURE BY NMR OF 319-360.
RX MEDLINE-94294808; PubMed-8023159;
RA Clore G.M., Onichinski J.G., Sakaguchi K., Zambreno N., Sakamoto H.,
RA Appella E., Gronenborn A.M.;
RL "High-resolution structure of the oligomerization domain of p53 by
RT multidimensional NMR."
RN Science 265:386-391(1994).
RN [18]
RP STRUCTURE BY NMR OF 325-355.
RX MEDLINE-95292092; PubMed-777377;
RA Lee W., Harvey T.S., Yin Y., Yau P., Litchfield D., Arrowsmith C.H.;
RL "Solution structure of the tetrameric minimum transforming domain of
RT p53."
RN Nat. Struct. Biol. 1:877-890(1994).
RN [19]
RP STRUCTURE BY NMR OF 326-354.
RX MEDLINE-98026899; PubMed-9321402;
RA McCoy M., Stavridi E.S., Waterman J.L., Wleczorek A.M., Opella S.J.,
RL Submitted (JUN-1991) to the EMBL/GenBank/DBJ databases
RN [9]
RP "Hydrophobic side-chain size is a determinant of the
RT three-dimensional structure of the p53 oligomerization domain."
RN EMBO J. 16:6230-6236(1997).
RN [20]
RP X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS) OF 94-289.
RX MEDLINE-94294806; PubMed-8023157;
RA Cho Y., Gorina S., Jeffrey P.D., Pavletich N.P.;
RL "Crystal structure of a p53 tumor suppressor-DNA complex:
RT understanding tumorigenic mutations."
RN Science 265:346-355(1994).
RN [21]
RP X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS) OF 325-356.
RX MEDLINE-95184011; PubMed-7878469;
RA Jeffrey P.D., Gorina S., Pavletich N.P.;
RL "Crystal structure of the tetramerization domain of the p53 tumor
RT suppressor at 1.7 angstroms."
RN Science 267:1498-1502(1995).
RN [22]
RP X-RAY CRYSTALLOGRAPHY (2.3 ANGSTROMS) OF 13-29 IN COMPLEX WITH MDM2.
RX MEDLINE-97081050; PubMed-8875929;
RA Kussie P.H., Gorina S., Marechal V., Elenbaas B., Moreau J.,
RL Levine A.J., Pavletich N.P.;
RT "Structure of the MDM2 oncoprotein bound to the p53 tumor suppressor
RN transactivation domain."
RN Science 274:948-953(1996).
RN [23]
RP X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS) OF 97-287 IN COMPLEX WITH 53BP2.
RX MEDLINE-97035414; PubMed-8875926;
RA Gorina S., Pavletich N.P.;
RL "Structure of the p53 tumor suppressor bound to the ankyrin and SH3
RT domains of 53BP2."
RN Science 274:1001-1005(1996).
RN [24]
RP REVIEW.
RX MEDLINE-94090335; PubMed-8266092;
RA Harris C.C.;
RL "p53: at the crossroads of molecular carcinogenesis and risk
RT assessment."
RN Science 262:1980-1981(1993).
RN [25]
RP REVIEW ON VARIANTS.
RX MEDLINE-91289156; PubMed-1905840;
RA Hoelstein M., Sidransky D., Vogelstein B., Harris C.C.;
RL "p53 mutations in human cancers."
RN Science 253:49-53(1991).
RN [26]
RP REVIEW ON VARIANTS.
RX MEDLINE-96271983; PubMed-8829653;
RA de Vries E.M.G., Ricke D.O., de Vries T.N., Hartmann A., Blaszyk H.,
RA Liao D., Soussi T., Kovach J.S., Sommer S.S.;
RL "Database of mutations in the p53 and APC tumor suppressor genes
RT designed to facilitate molecular epidemiological analyses."
RN Hum. Mutat. 7:202-213(1996).
RN [27]
RP VARIANT ARG-72.
RX MEDLINE-91153807; PubMed-1999338;
RA Olschwang S., Laurent-Puig P., Vassal A., Salmon R.-J., Thomas G.;
RL "Characterization of a frequent polymorphism in the coding sequence
RT of the Tp53 gene in colonic cancer patients and a control
RN population."
RN Hum. Genet. 86:369-370(1991).
RN [28]
RP VARIANT LFS THR-133.
RX MEDLINE-92034774; PubMed-1933902;
RA Law J.C., Strong L.C., Chidambaram A., Ferrell R.E.;
RL "A germ line mutation in exon 5 of the p53 gene in an extended cancer
RT family."
RN Cancer Res. 51:6385-6387(1991).
RN [29]
RP VARIANTS LFS CYS-245; TRP-248; PRO-252 AND LYS-258.

- RX MEDLINE-91057657; PubMed-1978757;
RA Malkin D., Li F.P., Strong L.C., Fraumeni J.F. Jr., Nelson C.E.,
RA Kim D.H., Kassel J., Gryka M.A., Bischoff F.Z., Tainsky M.A.,
RA Friend S.H.;
RT "Germ line p53 mutations in a familial syndrome of breast cancer,
RT sarcomas, and other neoplasms.";
RL Science 250:1233-1238(1990).
RN [30]
RX VARIANT LFS ASP-245.
RX MEDLINE-91080929; PubMed-2259385;
RA Srivastava S., Zou Z., Pirolo K., Blattner W., Chang E.H.;
RT "Germ-line transmission of a mutated p53 gene in a cancer-prone
RT family with Li-Fraumeni syndrome.";
RL Nature 348:747-749(1990).
RN [31]
RX VARIANT LFS LEU-272.
RX MEDLINE-92147883; PubMed-1737852;
RA Felix C.A., Nau M.M., Takahashi T., Mitsudomi T., Chiba I.,
RA Poplack D.G., Reaman G.H., Cole D.E., Letterio J.J., Whang-Peng J.,
RA Knutsen T., Minna J.D.;
RT "Hereditary and acquired p53 gene mutations in childhood acute
RT lymphoblastic leukemia.";
RL J. Clin. Invest. 89:640-647(1992).
RN [32]
RX VARIANT LFS HIS-273 AND VAL-325.
RX MEDLINE-92228023; PubMed-1565144;
RA Malkin D., Jolly K.W., Barbier N., Look A.T., Friend S.H.,
RA Gebhardt M.C., Andersen T.I., Boerresen A.-L., Li F.P., Garber J.,
RA Strong L.C.;
RT "Germline mutations of the p53 tumor-suppressor gene in children and
RT young adults with second malignant neoplasms.";
RL New Engl. J. Med. 326:1309-1315(1992).
RN [33]
RX VARIANT BREAST TUMORS GLN-132; SER-249; LYS-280 AND LYS-285.
RX MEDLINE-90295284; PubMed-1694291;
RA Bartek J., Iggo R., Gannon J., Lane D.P.;
RT "Genetic and immunochemical analysis of mutant p53 in human breast
RT cancer cell lines.";
RL Oncogene 5:893-899(1990).
RN [34]
RX VARIANT COLON TUMORS PHE-241 AND HIS-273.
RX MEDLINE-91017544; PubMed-1699228;
RA Rodrigues N.R., Rowan A., Smith M.E.F., Kerr I.B., Bodmer W.F.,
RA Gannon J.V., Lane D.P.;
RT "p53 mutations in colorectal cancer.";
RL Proc. Natl. Acad. Sci. U.S.A. 87:7555-7559(1990).
RN [35]
RX VARIANT ESOPHAGUS TUMOR V-154; V-245; Q-248; L-278 AND S-278.
RX MEDLINE-91088630; PubMed-2263646;
RA Hollstein M.C., Metcalf R.A., Welsh J.A., Montesano R., Harris C.C.;
RT "Frequent mutation of the p53 gene in human esophageal cancer.";
RL Proc. Natl. Acad. Sci. U.S.A. 87:9958-9961(1990).
RN [36]
RX VARIANT COLORECTAL CANCER MUTATIONS.
RX MEDLINE-91282784; PubMed-1647768;
RA Ishioka C., Sato T., Gamoh M., Suzuki T., Shibata H., Kanamaru R.,
RA Wakui A., Yamazaki T.;
RT "Mutations of the p53 gene, including an intronic point mutation, in
RT colorectal tumors.";
RL Biochem. Biophys. Res. Commun. 177:901-906(1991).
RN [37]
RX VARIANT ESOPHAGUS TUMORS L-152; A-155; H-175; F-176 AND H-273.
RX MEDLINE-91330175; PubMed-1868473;
RA Casson A.G., Mukhopadhyay T., Cleary K.R., Ro J.Y., Levin B.,
RA Roth J.A.;
RT "p53 gene mutations in Barrett's epithelium and esophageal cancer.";
RL Cancer Res. 51:4495-4499(1991).
RN [38]
RX VARIANT HEPATOCELLULAR CARCINOMAS MUTATIONS IN CHINA.
RX MEDLINE-91187113; PubMed-1849234;
RA Hsu I.C., Metcalf R.A., Sun T., Welsh J.A., Wang N.J., Harris C.C.;
RT "Mutational hotspot in the p53 gene in human hepatocellular
RT carcinomas.";
- RL Nature 350:427-428(1991).
RN [39]
RX VARIANT HEPATOCELLULAR CARCINOMAS MUTATIONS IN SOUTH AFRICA.
RX MEDLINE-91187114; PubMed-1672732;
RA Bressan B., Kew M., Wands J., Osturk M.;
RT "Selective G to T mutations of p53 gene in hepatocellular carcinoma
RT from southern Africa.";
RL Nature 350:429-431(1991).
RN [40]
RX VARIANT HNSC PHE-176; PHE-242; CYS-245; LEU-248 AND HIS-273.
RX MEDLINE-93007999; PubMed-1394225;
RA Somers K.D., Merrick M.A., Lopez M.E., Incognito L.S., Schechter G.L.,
RA Casey G.;
RT "Frequent p53 mutations in head and neck cancer.";
RL Cancer Res. 52:5997-6000(1992).
RN [41]
RX VARIANT IN ANOGENITAL CARCINOMAS.
RX MEDLINE-93010989; PubMed-1327751;
RA Crook T., Vonsden K.H.;
RT "Properties of p53 mutations detected in primary and secondary
RT cervical cancers suggest mechanisms of metastasis and involvement of
RT environmental carcinogens.";
RL EMBO J. 11:3935-3940(1992).
RN [42]
RX VARIANT OSC CYS-205; GLU-281 AND LYS-285.
RX MEDLINE-9303790; PubMed-1459726;
RA Sakai E., Rikimaru K., Ueda M., Matsumoto Y., Ishii N., Enomoto S.,
RA Yamamoto H., Tsuchida N.;
RT "The p53 tumor-suppressor gene and ras oncogene mutations in oral
RT squamous-cell carcinoma.";
RL Int. J. Cancer 52:867-872(1992).
RN [43]
RX VARIANT 177-PRO--HIS-178 DUPL.
RX MEDLINE-93265016; PubMed-1303181;
RA Bhatia K., Gutierrez M.I., Magrath I.T.;
RT "A novel mutation in the p53 gene in a Burkitt's lymphoma cell line.";
RL Hum. Mol. Genet. 1:207-208(1992).
RN [44]
RX VARIANT IN BURKITT'S LYMPHOMAS.
RX MEDLINE-93064692; PubMed-1437144;
RA Duthu A., Debuire B., Romano J.W., Ehrhart J.C., Fiscella M., May E.,
RA Appella E., May P.;
RT "p53 mutations in Raji cells: characterization and localization
RT relative to other Burkitt's lymphomas.";
RL Oncogene 7:2161-2167(1992).
RN [45]
RX VARIANT NASOPHARYNGEAL CARCINOMA THR-280.
RX MEDLINE-92335329; PubMed-1631151;
RA Sun Y., Hegamyer G., Heng Y.-J., Hildesheim A., Chen J.-Y., Cao Y.,
RA Yoo K.-T., Colburn N.H.;
RT "An infrequent point mutation of the p53 gene in human nasopharyngeal
RT carcinoma.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:6516-6520(1992).
RN [46]
RX VARIANT IN SCC OF THE HNSC.
RX MEDLINE-93235942; PubMed-7682763;
RA Caamano J., Zhang S.Y., Rosvold E.A., Bauer B., Klein-Szanto A.J.P.;
RT "p53 alterations in human squamous cell carcinomas and carcinoma cell
RT lines.";
RL Am. J. Pathol. 142:1131-1139(1993).
RN [47]
RX VARIANT IN HNSC.
RX MEDLINE-94006220; PubMed-8402617;
RA Boyle J.O., Hakim J., Koch W., van der Riet P., Hruban R.H., Roa R.A.,
RA Correo R., Eby Y.J., Ruppert J.M., Sidransky D.;
RT "The incidence of p53 mutations increases with progression of head
RT and neck cancer.";
RL Cancer Res. 53:4477-4480(1993).
RN [48]
RX VARIANT IN COLON TUMORS.
RX MEDLINE-93330562; PubMed-8336944;
RA Hamelin R., Jegu N., Laurent-Puig P., Vidaud M., Thomas G.;
RT "Efficient screening of p53 mutations by denaturing gradient gel

RT electrophoresis in colorectal tumors.":
 RL Oncogene 8:2213-2220(1993).
 RN [49]
 RP CHARACTERIZATION OF VARIANT ALA-143.
 RX MEDLINE-94283378; PubMed-8013454;
 RA Zhang W., Guo X.-Y., Hu G.-Y., Liu W.-B., Shay J.W., Deisseroth A.B.;
 RT "A temperature-sensitive mutant of human p53."
 RL EMBO J. 13:2535-2544(1994).
 RN [50]
 RP VARIANTS LFS HIS-175; ARG-193; GLN-248; CYS-273 AND TYR-275.
 RX MEDLINE-95193787; PubMed-7887414;
 RA Frebourg T., Barbier N., Yan Y.-X., Garber J.E., Dreyfus M.,
 RA Fraumeni J.F. Jr., Li F.P., Friend S.H.;
 RT "Germline p53 mutations in 15 families with Li-Fraumeni syndrome."
 RL Am. J. Hum. Genet. 56:608-615(1995).
 RN [51]
 RP VARIANT LFS HIS-175.
 RX MEDLINE-96423319; PubMed-8825920;
 RA Varley J.M., McGrown G., Thorncroft M., Tricker K.J., Teare M.D.,
 RA Santibanez-Koref M.F., Houlston R.S., Martin J., Birch J.M.,
 RA Evans D.G.R.;
 RT "An extended Li-Fraumeni kindred with gastric carcinoma and a codon
 RT 175 mutation in TP53."
 RL J. Med. Genet. 32:942-945(1995).
 RN [52]
 RP VARIANTS BA PHE-176; SER-245; TRP-248; TRP-282 AND GLN-286.
 RX MEDLINE-96233927; PubMed-8829627;
 RA Audrezet M.-P., Robaszekiewicz M., Mercier B., Nussbaum J.-B.,
 RA Hardy E., Bail J.-P., Volant A., Lozac H.P., Gouerou H., Ferrec C.;
 RT "Molecular analysis of the TP53 gene in Barrett's adenocarcinoma."
 RL Hum. Mutat. 7:109-113(1996).
 RN [53]
 RP VARIANTS COLORECTAL TUMORS.
 RX MEDLINE-97255965; PubMed-9101296;
 RA Guldberg P., Nedergaard T., Nielsen H.J., Olsen A.C., Ahrenkiel V.,
 RA Zeuthen J.;
 RT "Single-step DGGE-based mutation scanning of the p53 gene:
 RT application to genetic diagnosis of colorectal cancer."
 RL Hum. Mutat. 9:348-355(1997).
 RN [54]
 RP VARIANT COLORECTAL CARCINOMA ILE-157.
 RX MEDLINE-98080146; PubMed-9419979;
 RA Miyaki M., Nishio J., Konishi M., Kikuchi-Yanoshta R., Tanaka K.,
 RA Muraoka M., Nagato M., Chong J.-M., Koike M., Terada T., Kawahara Y.,
 RA Fukutome A., Tomiyama J., Chuganji Y., Monoi M., Utsunomiya J.;
 RT "Drastic genetic instability of tumors and normal tissues in Turcot
 RT syndrome."
 RL Oncogene 15:2877-2881(1997).
 RN [55]
 RP VARIANTS S-152; I-169; F-176; T-195; C-220; I-230; C-273 AND S-278.
 RX MEDLINE-98111377; PubMed-9450901;
 RA van Rensburg E.J., Engelbrecht S., van Heerden W.F.P., Kotze M.J.,
 RA Raubenheimer E.J.;
 RT "Detection of p53 gene mutations in oral squamous cell carcinomas of
 RT a black African population sample."
 RL Hum. Mutat. 11:39-44(1998).
 RN [56]
 RP VARIANT NONCLASSICAL LFS CYS-337.
 RX MEDLINE-98112421; PubMed-9452042;
 RA Luca J.W., Strong L.C., Hansen M.F.;
 RT "A germline missense mutation R337C in exon 10 of the human p53
 RT gene."
 RL Hum. Mutat. Suppl. 1:S58-S61(1998).
 CC -!- FUNCTION: Acts as a tumor suppressor in many tumor types; induces
 CC growth arrest or apoptosis depending on the physiological
 CC circumstances and cell type. Involved in cell cycle regulation as
 CC a trans-activator that acts to negatively regulate cell division
 CC by controlling a set of genes required for this process. One of
 CC the activated genes is an inhibitor of cyclin-dependent kinases.
 CC Apoptosis induction seems to be mediated either by stimulation of
 CC BAX and FAS antigen expression, or by repression of Bcl-2
 CC expression.
 CC -!- SUBUNIT: Binds DNA as a homotetramer. In vitro, the interaction of

TP53 with cancer-associated/HPV (E6) viral proteins leads to
 ubiquitination and degradation of TP53 giving a possible model for
 cell growth regulation. This complex formation requires an
 additional factor, E6-AP, which stably associates with TP53 in the
 presence of E6.
 CC -!- SUBCELLULAR LOCATION: Nuclear.
 CC -!- ALTERNATIVE PRODUCTS: 2 ISOFORMS; 1 (SHOWN HERE) AND 2/19RET;
 CC ARE PRODUCED BY ALTERNATIVE SPLICING. ISOFORM 2 SEEMS TO BE
 CC NON-FUNCTIONAL IS EXPRESSED IN QUIESCENT LYMPHOCYTES.
 CC -!- PTM: PHOSPHORYLATION ON SER RESIDUES MEDIATES TRANSCRIPTIONAL
 CC ACTIVATION.
 CC -!- PTM: DEPHOSPHORYLATED BY PP2A. SV40 SMALL T ANTIGEN INHIBITS THE
 CC DEPHOSPHORYLATION BY THE AC FORM OF PP2A.
 CC -!- PTM: O-LINKED GLYCOSYLATION IN THE C-TERMINAL BASIC REGION WAS
 CC STUDIED IN EB-1 CELL LINE.
 CC -!- DISEASE: TP53 IS FOUND IN INCREASED AMOUNTS IN A WIDE VARIETY
 CC OF TRANSFORMED CELLS. TP53 IS FREQUENTLY MUTATED OR INACTIVATED
 CC IN ABOUT 60% OF CANCERS.
 CC -!- DISEASE: DEFECTS IN TP53 ARE ALSO THE CAUSE OF GERMLINE CANCERS
 CC SUCH AS LI-FRAUMENI SYNDROME (LFS). LFS IS AN AUTOSOMAL DOMINANT
 CC FAMILIAL CANCER SYNDROME THAT IN ITS CLASSIC FORM IS DEFINED BY
 CC THE EXISTENCE OF BOTH A PROBAND WITH A SARCOMA AND TWO OTHER
 CC FIRST-DEGREE RELATIVES WITH A CANCER BY AGE 45 YEARS. IN THESE
 CC FAMILIES THE AFFECTED RELATIVES DEVELOP A DIVERSE SET OF
 CC MALIGNANCIES INCLUDING BREAST CARCINOMAS, SARCOMAS, AND BRAIN
 CC TUMORS AT UNUSUALLY EARLY AGES.
 CC -!- DISEASE: VARIANT ALA-143 IS TEMPERATURE SENSITIVE. AT 32.5 DEGREES
 CC CELSIUS IT POSSESSES STRONG DNA BINDING ABILITY, BUT AT 37.5
 CC DEGREES CELSIUS ITS TRANSCRIPTIONAL ACTIVITIES ARE GREATLY
 CC REDUCED.
 CC -!- DISEASE: DEFECTS IN TP53 ARE ALSO THE CAUSE OF BARRETT'S
 CC ADENOCARCINOMAS (BA). BA IS A CONDITION IN WHICH THE NORMALLY
 CC STRATIFIED SQUAMOUS EPITHELIUM OF THE LOWER ESOPHAGUS IS REPLACED
 CC BY A METAPLASTIC COLUMNAR EPITHELIUM. THE CONDITION DEVELOPS AS A
 CC COMPLICATION IN APPROXIMATELY 10% OF PATIENTS WITH CHRONIC
 CC GASTROESOPHAGEAL REFLUX DISEASE AND PREDISPOSES TO THE DEVELOPMENT
 CC OF ESOPHAGEAL ADENOCARCINOMA.
 CC -!- DISEASE: DEFECTS IN TP53 ARE THE CAUSE OF HEAD AND NECK SQUAMOUS
 CC CARCINOMAS (HNSC) AND ORAL SQUAMOUS CELL CARCINOMAS (OSCC).
 CC CIGARETTE SMOKE IS A PRIME MUTAGENIC AGENT IN CANCER OF THE
 CC AERODIGESTIVE TRACT.
 CC -!- SIMILARITY: BELONGS TO THE P53 FAMILY.
 CC -!- DATABASE: NAME-HotMolbase: NOTE-p53 entry;
 CC WWW="http://bioinformatics.weizmann.ac.il/hotmolbase/entries/p53.htm".
 CC -!- DATABASE: NAME-IARC p53;
 CC NOTE-IARC db of somatic p53 mutations;
 CC WWW="http://www.iarc.fr/p53/homepage.htm".
 CC -!- DATABASE: NAME-Tokyo p53;
 CC NOTE-University of Tokyo db of p53 mutations;
 CC WWW="http://p53.genome.ad.jp".
 CC -!- DATABASE: NAME-Prague p53;
 CC NOTE-University of Prague db of germline p53 mutations;
 CC WWW="http://www.lf2.cuni.cz/win/projects/germline_mut_p53.htm".
 CC -!- DATABASE: NAME-Atlas Genet. Cytogenet. Oncol. Haematol.;
 CC WWW="http://www.infobiogen.fr/services/chronocancer/Genes/P53ID88.html".
 CC -----
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 CC -----
 CC EMBL; M14695; AAA61212.1;
 CC EMBL; M22898; AAA59988.1;
 CC EMBL; M22882; AAA59988.1; JOINED.
 CC EMBL; M22883; AAA59988.1; JOINED.
 CC EMBL; M22884; AAA59988.1; JOINED.
 CC EMBL; M22887; AAA59988.1; JOINED.
 CC EMBL; M22886; AAA59988.1; JOINED.
 CC EMBL; M22894; AAA59988.1; JOINED.

DR	EMBL: M22895; AAA59988.1; JOINED.	79	VARIANT	79	A -> T (IN CLONE P53-H-1).
DR	EMBL: M22896; AAA59988.1; JOINED.	87	VARIANT	87	/FTid=VAR_005857.
DR	EMBL: M22897; AAA59988.1; JOINED.	87	VARIANT	87	P -> Q (IN A BRAIN TUMOR).
DR	EMBL: K03199; AAA59989.1; -	94	VARIANT	94	/FTid=VAR_005858.
DR	EMBL: X01405; CAA25652.1; -	94	VARIANT	94	S -> T (IN A COLON TUMOR).
DR	EMBL: M14694; AAA61211.1; -	110	VARIANT	110	/FTid=VAR_005859.
DR	EMBL: X02469; CAA26306.1; -	110	VARIANT	110	R -> C (IN A LIVER AND AN UTERUS TUMOR).
DR	EMBL: U94788; AAC12971.1; -	110	VARIANT	110	/FTid=VAR_005860.
DR	EMBL: AF136270; AAD28628.1; -	110	VARIANT	110	R -> L (IN A LIVER TUMOR).
DR	EMBL: AF136270; AAD28628.1; JOINED.	110	VARIANT	110	/FTid=VAR_005861.
DR	EMBL: X60012; CAA42627.1; ALT_TERM.	110	VARIANT	110	R -> P (IN A BREAST TUMOR).
DR	EMBL: X54156; CAA38095.1; -	113	VARIANT	113	/FTid=VAR_005862.
DR	PIR: A25224; A25224.	113	VARIANT	113	E -> C (IN A LUNG TUMOR).
DR	PIR: A25397; A25397.	125	VARIANT	125	/FTid=VAR_005863.
DR	PIR: B23397; B23397.	125	VARIANT	125	T -> M (IN A LUNG TUMOR).
DR	PIR: J0436; J0436.	126	VARIANT	126	/FTid=VAR_005864.
DR	PDB: 1OLG; 08-MAR-95.	126	VARIANT	126	Y -> D (IN A COLORECTAL TUMOR).
DR	PDB: 1OLH; 31-MAR-95.	126	VARIANT	126	/FTid=VAR_005865.
DR	PDB: 1SAE; 15-OCT-95.	127	VARIANT	127	Y -> N (IN A LEUKEMIA AND A LYMPHOMA).
DR	PDB: 1SAG; 15-OCT-95.	127	VARIANT	127	/FTid=VAR_005866.
DR	PDB: 1SAH; 15-OCT-95.	128	VARIANT	128	S -> F (IN A LUNG TUMOR).
DR	PDB: 1SAL; 15-OCT-95.	128	VARIANT	128	/FTid=VAR_005867.
DR	PDB: 1SAJ; 15-OCT-95.	129	VARIANT	129	P -> S (IN A BREAST TUMOR).
DR	PDB: 1SAK; 15-OCT-95.	130	VARIANT	130	/FTid=VAR_005868.
DR	PDB: 1SAL; 15-OCT-95.	130	VARIANT	130	A -> D (IN A SARCOMA).
DR	PDB: 1TSR; 29-JAN-96.	131	VARIANT	131	/FTid=VAR_005869.
DR	PDB: 1AIE; 16-JUN-97.	131	VARIANT	131	L -> R (IN A LIVER TUMOR).
DR	PDB: 1PES; 07-FEB-95.	131	VARIANT	131	/FTid=VAR_005870.
DR	PDB: 1PEP; 07-FEB-95.	132	VARIANT	132	N -> S (IN A LIVER TUMOR).
DR	PDB: 1TUP; 07-DEC-95.	132	VARIANT	132	/FTid=VAR_005871.
DR	PDB: 1YCO; 19-NOV-97.	132	VARIANT	132	N -> K (IN A COLON TUMOR).
DR	PDB: 1YCR; 19-NOV-97.	133	VARIANT	133	/FTid=VAR_005872.
DR	PDB: 1YCS; 19-NOV-97.	133	VARIANT	133	K -> M (IN A SARCOMA).
DR	PDB: 1A1U; 08-APR-98.	133	VARIANT	133	/FTid=VAR_005873.
DR	PDB: 1C26; 24-JAN-01.	135	VARIANT	135	K -> Q (IN A BREAST TUMOR).
DR	TRANSFAC: T00671; -	135	VARIANT	135	/FTid=VAR_005874.
DR	DR SWISS-2DPAGE: P04637; HUMAN.	135	VARIANT	135	/FTid=VAR_005875.
DR	Genew: HGNC:11998; TP53.	135	VARIANT	135	C -> S (IN A COLON TUMOR).
DR	MIN: 191170; -	135	VARIANT	135	/FTid=VAR_005876.
DR	MIN: 151623; -	135	VARIANT	135	/FTid=VAR_005877.
DR	InterPro: IPR002117; P53.	136	VARIANT	136	Q -> E (IN A BREAST TUMOR).
DR	Pfam: PF00870; P53.1.	136	VARIANT	136	/FTid=VAR_005878.
DR	PRINTS: PR00386; P53SUPPRESSOR.	136	VARIANT	136	Q -> K (IN A COLON TUMOR).
DR	PRODOM: PD002681; P53; 1.	137	VARIANT	137	/FTid=VAR_005879.
DR	PROSITE: PS00348; P53; 1.	137	VARIANT	137	L -> Q (IN A LIVER TUMOR).
KW	Anti-oncogene; DNA-binding; Transcription regulation; Activator;	138	VARIANT	138	/FTid=VAR_005880.
KW	Nuclear protein; Phosphorylation; Glycoprotein; Apoptosis;	138	VARIANT	138	A -> P (IN A LUNG TUMOR).
KW	Alternative splicing; Phosphorylation; Disease mutation; Polymorphism; 3D-structure;	139	VARIANT	139	/FTid=VAR_005881.
KW	Li-Fraumeni syndrome	139	VARIANT	139	K -> N (IN A BREAST, AN OVARY TUMOR, A LEUKEMIA AND A LYMPHOMA).
FT	DOMAIN 1	140	VARIANT	140	/FTid=VAR_005882.
FT	DNA_BIND 102 292	140	VARIANT	140	T -> Y (IN A LEUKEMIA AND A LYMPHOMA).
FT	DOMAIN 325 356	141	VARIANT	141	/FTid=VAR_005883.
FT	DOMAIN 368 387	141	VARIANT	141	C -> G (IN A OVARY TUMOR).
FT	DOMAIN 241 248	141	VARIANT	141	C -> F (IN A BREAST TUMOR).
FT	DOMAIN 311 323	141	VARIANT	141	/FTid=VAR_005885.
FT	DOMAIN 339 346	141	VARIANT	141	C -> Y (IN MANY TYPES OF TUMORS).
FT	MOD_RES 315 315	143	VARIANT	143	/FTid=VAR_005886.
FT	MOD_RES 392 392	143	VARIANT	143	V -> A (IN A COLON TUMOR).
FT	VARSPPLIC 332 341	144	VARIANT	144	/FTid=VAR_005887.
FT	VARSPPLIC 342 393	144	VARIANT	144	Q -> P (IN A LEUKEMIA AND A LYMPHOMA).
FT	VARIANT 7	145	VARIANT	145	/FTid=VAR_005888.
FT	VARIANT 35 35	145	VARIANT	145	L -> P (IN A BRAIN TUMOR).
FT	VARIANT 43 43	145	VARIANT	145	/FTid=VAR_005889.
FT	VARIANT 53 53	145	VARIANT	145	L -> Q (IN A ESOPHAGUS TUMOR).
FT	VARIANT 60 60	147	VARIANT	147	/FTid=VAR_005890.
FT	VARIANT 60 60	147	VARIANT	147	V -> D (IN A OVARY TUMOR).
FT	VARIANT 72 72	147	VARIANT	147	/FTid=VAR_005891.
FT	VARIANT 72 72	147	VARIANT	147	V -> G (IN A PROSTATE TUMOR).
FT	VARIANT 72 72	147	VARIANT	147	/FTid=VAR_005892.

FT	149	VARIANT	149	S -> P (IN A BREAST TUMOR).	FT	174	VARIANT	174	/FTID-VAR_005926.
FT	151	VARIANT	151	/FTID-VAR_005893.	FT	174	VARIANT	174	R -> H (IN THE CELL LINE DETROIT 562
FT	151	VARIANT	151	P -> A (IN A BRAIN AND A COLON TUMOR).	FT	175	VARIANT	175	OF SQUAMOUS CELL CARCINOMA).
FT	151	VARIANT	151	/FTID-VAR_005894.	FT	175	VARIANT	175	/FTID-VAR_005927.
FT	151	VARIANT	151	P -> S (IN MANY TYPES OF TUMORS).	FT	175	VARIANT	175	R -> C (IN A COLON AND AN UTERUS TUMOR).
FT	151	VARIANT	151	/FTID-VAR_005895.	FT	175	VARIANT	175	/FTID-VAR_005928.
FT	152	VARIANT	152	P -> T (IN A BREAST TUMOR).	FT	175	VARIANT	175	R -> G (IN A BRAIN TUMOR).
FT	152	VARIANT	152	/FTID-VAR_005896.	FT	175	VARIANT	175	/FTID-VAR_005929.
FT	152	VARIANT	152	P -> L (IN A ESOPHAGUS TUMOR).	FT	175	VARIANT	175	R -> L (IN A BREAST AND A COLON TUMOR).
FT	152	VARIANT	152	/FTID-VAR_005897.	FT	175	VARIANT	175	/FTID-VAR_005930.
FT	152	VARIANT	152	P -> S (IN OSCC).	FT	175	VARIANT	175	R -> P (IN A CERVICAL CARCINOMA).
FT	153	VARIANT	153	/FTID-VAR_005898.	FT	175	VARIANT	175	/FTID-VAR_005931.
FT	153	VARIANT	153	P -> T (IN A COLON TUMOR).	FT	175	VARIANT	175	R -> H (IN LFS COLON/ESOPHAGUS/
FT	154	VARIANT	154	/FTID-VAR_005899.	FT	175	VARIANT	175	GASTRIC TUMORS).
FT	154	VARIANT	154	G -> V (IN ESOPHAGUS TUMOR).	FT	175	VARIANT	175	/FTID-VAR_005932.
FT	155	VARIANT	155	/FTID-VAR_005900.	FT	176	VARIANT	176	C -> F (IN BA AND MANY TYPES OF TUMORS).
FT	155	VARIANT	155	T -> A (IN A ESOPHAGUS TUMOR).	FT	176	VARIANT	176	/FTID-VAR_005933.
FT	156	VARIANT	156	/FTID-VAR_005901.	FT	176	VARIANT	176	C -> W (IN A LUNG TUMOR).
FT	156	VARIANT	156	R -> P (IN AN OSTEOSARCOMA CELL LINE).	FT	177	VARIANT	177	/FTID-VAR_005934.
FT	157	VARIANT	157	/FTID-VAR_005902.	FT	177	VARIANT	177	P -> L (IN A SKIN TUMOR).
FT	157	VARIANT	157	V -> D (IN A LIVER TUMOR).	FT	178	VARIANT	178	/FTID-VAR_005935.
FT	157	VARIANT	157	/FTID-VAR_005903.	FT	178	VARIANT	178	H -> HPH (IN A BURKITT'S LYMPHOMA).
FT	157	VARIANT	157	V -> I (IN COLORECTAL CARCINOMA FROM A	FT	181	VARIANT	181	/FTID-VAR_005936.
FT	157	VARIANT	157	PATIENT WITH TURCOT SYNDROME).	FT	181	VARIANT	181	R -> L (IN A CERVICAL CARCINOMA).
FT	157	VARIANT	157	/FTID-VAR_012977.	FT	182	VARIANT	182	C -> S (IN A STOMACH TUMOR).
FT	157	VARIANT	157	V -> S (IN A S.AFRICAN HEPATOCELLULAR	FT	182	VARIANT	182	/FTID-VAR_005937.
FT	157	VARIANT	157	CARCINOMA).	FT	184	VARIANT	184	/FTID-VAR_005938.
FT	158	VARIANT	158	/FTID-VAR_005904.	FT	184	VARIANT	184	D -> Y (IN A LEUKEMIA AND A LYMPHOMA).
FT	158	VARIANT	158	R -> C (IN A NONINVASIVE HEAD AND NECK	FT	186	VARIANT	186	/FTID-VAR_005939.
FT	158	VARIANT	158	TUMOR).	FT	186	VARIANT	186	D -> Y (IN A BREAST TUMOR).
FT	158	VARIANT	158	/FTID-VAR_005905.	FT	187	VARIANT	187	/FTID-VAR_005940.
FT	158	VARIANT	158	R -> G (IN A BRAIN AND A LUNG TUMOR).	FT	187	VARIANT	187	G -> C (IN A BREAST TUMOR).
FT	158	VARIANT	158	/FTID-VAR_005906.	FT	187	VARIANT	187	/FTID-VAR_005941.
FT	160	VARIANT	160	R -> H (IN A MANY TYPES OF TUMORS).	FT	187	VARIANT	187	G -> S (IN A LEUKEMIA AND A LYMPHOMA).
FT	160	VARIANT	160	/FTID-VAR_005907.	FT	189	VARIANT	189	A -> P (IN AN OVARY TUMOR).
FT	160	VARIANT	160	M -> I (IN A LUNG AND A SKIN TUMOR).	FT	190	VARIANT	190	/FTID-VAR_005943.
FT	161	VARIANT	161	/FTID-VAR_005908.	FT	190	VARIANT	190	P -> L (IN A COLORECTAL TUMOR).
FT	161	VARIANT	161	A -> S (IN A BRAIN TUMOR).	FT	191	VARIANT	191	/FTID-VAR_005944.
FT	162	VARIANT	162	/FTID-VAR_005909.	FT	191	VARIANT	191	P -> T (IN A COLON TUMOR).
FT	162	VARIANT	162	I -> S (IN A BRAIN TUMOR).	FT	192	VARIANT	192	Q -> R (IN A COLON TUMOR).
FT	162	VARIANT	162	/FTID-VAR_005910.	FT	192	VARIANT	192	/FTID-VAR_005945.
FT	162	VARIANT	162	I -> V (IN A OVARY TUMOR).	FT	193	VARIANT	193	H -> D (IN AN UTERUS TUMOR).
FT	163	VARIANT	163	/FTID-VAR_005911.	FT	193	VARIANT	193	/FTID-VAR_005947.
FT	163	VARIANT	163	Y -> H (IN HNSC).	FT	193	VARIANT	193	H -> R (IN LFS).
FT	163	VARIANT	163	/FTID-VAR_005912.	FT	194	VARIANT	194	/FTID-VAR_005948.
FT	164	VARIANT	164	K -> N (IN A LUNG TUMOR).	FT	194	VARIANT	194	L -> P (IN A COLON TUMOR).
FT	164	VARIANT	164	/FTID-VAR_005913.	FT	194	VARIANT	194	/FTID-VAR_005949.
FT	164	VARIANT	164	K -> Q (IN A BREAST TUMOR).	FT	195	VARIANT	195	L -> R (IN THE CELL LINE HU 281 OF
FT	165	VARIANT	165	/FTID-VAR_005914.	FT	195	VARIANT	195	SQUAMOUS CELL CARCINOMA).
FT	165	VARIANT	165	Q -> L (IN A BREAST TUMOR).	FT	198	VARIANT	198	/FTID-VAR_005950.
FT	165	VARIANT	165	/FTID-VAR_005915.	FT	198	VARIANT	198	I -> T (IN OSCC).
FT	165	VARIANT	165	Q -> R (IN A OVARY TUMOR).	FT	205	VARIANT	205	E -> K (IN HNSC).
FT	166	VARIANT	166	/FTID-VAR_005916.	FT	205	VARIANT	205	/FTID-VAR_005952.
FT	166	VARIANT	166	S -> L (IN A LUNG TUMOR).	FT	205	VARIANT	205	Y -> C (IN OSCC).
FT	168	VARIANT	168	/FTID-VAR_005917.	FT	205	VARIANT	205	/FTID-VAR_005953.
FT	168	VARIANT	168	H -> R (IN A BRAIN TUMOR).	FT	213	VARIANT	213	Y -> D (IN HNSC).
FT	169	VARIANT	169	/FTID-VAR_005918.	FT	213	VARIANT	213	/FTID-VAR_005954.
FT	169	VARIANT	169	M -> I (IN OSCC).	FT	213	VARIANT	213	R -> Q (IN A BURKITT'S LYMPHOMA AND A
FT	169	VARIANT	169	/FTID-VAR_005919.	FT	216	VARIANT	216	COLORECTAL TUMOR).
FT	169	VARIANT	169	M -> T (IN A NONINVASIVE HEAD AND NECK	FT	220	VARIANT	220	/FTID-VAR_005955.
FT	169	VARIANT	169	TUMOR).	FT	220	VARIANT	220	V -> M (IN HNSC).
FT	170	VARIANT	170	/FTID-VAR_005920.	FT	220	VARIANT	220	/FTID-VAR_005956.
FT	170	VARIANT	170	T -> M (IN A COLON TUMOR).	FT	220	VARIANT	220	Y -> C (IN OSCC).
FT	170	VARIANT	170	/FTID-VAR_005921.	FT	220	VARIANT	220	/FTID-VAR_005957.
FT	172	VARIANT	172	T -> S (IN A COLON TUMOR).	FT	220	VARIANT	220	Y -> H (IN A COLON TUMOR).
FT	172	VARIANT	172	/FTID-VAR_005922.	FT	220	VARIANT	220	/FTID-VAR_005958.
FT	173	VARIANT	173	V -> A (IN A PROSTATE TUMOR).	FT	220	VARIANT	220	Y -> S (IN HNSC).
FT	173	VARIANT	173	/FTID-VAR_005923.	FT	228	VARIANT	228	/FTID-VAR_005959.
FT	173	VARIANT	173	V -> E (IN A COLON TUMOR).	FT	228	VARIANT	228	D -> E (IN HNSC).
FT	173	VARIANT	173	/FTID-VAR_005924.	FT	228	VARIANT	228	/FTID-VAR_005960.
FT	173	VARIANT	173	V -> L (IN A CERVICAL CARCINOMA).					
FT	173	VARIANT	173	/FTID-VAR_005925.					
FT	173	VARIANT	173	V -> M (IN A COLON TUMOR).					

FT	VARIANT	230	230	T -> I (IN OSCC).	FT	VARIANT	273	273	R -> G (IN HNSC).
FT	VARIANT	232	232	/FTid=VAR_005961.	FT	VARIANT	273	273	/FTid=VAR_005994.
FT	VARIANT	234	234	I -> T (IN AN ANAL TUMOR).	FT	VARIANT	274	274	R -> H (IN LFS, COLON AND ESOPHAGUS
FT	VARIANT	234	234	/FTid=VAR_005962.	FT	VARIANT	275	275	TUMORS).
FT	VARIANT	234	234	Y -> C (IN HNSC).	FT	VARIANT	275	275	/FTid=VAR_005995.
FT	VARIANT	237	237	/FTid=VAR_005963.	FT	VARIANT	275	275	V -> F (IN A COLORECTAL TUMOR).
FT	VARIANT	237	237	Y -> H (IN A BURKITT'S LYMPHOMA).	FT	VARIANT	275	275	/FTid=VAR_005997.
FT	VARIANT	237	237	/FTid=VAR_005964.	FT	VARIANT	275	275	C -> Y (IN LFS, A BRAIN, A LUNG, A RENAL,
FT	VARIANT	238	238	M -> I (IN A COLON TUMOR).	FT	VARIANT	277	277	A STOMACH TUMOR).
FT	VARIANT	238	238	/FTid=VAR_005965.	FT	VARIANT	278	278	/FTid=VAR_005998.
FT	VARIANT	238	238	C -> F (IN AN ANAL TUMOR).	FT	VARIANT	278	278	C -> W (IN A BREAST AND A STOMACH TUMOR).
FT	VARIANT	238	238	/FTid=VAR_005966.	FT	VARIANT	278	278	/FTid=VAR_005999.
FT	VARIANT	240	240	C -> Y (IN A COLORECTAL TUMOR).	FT	VARIANT	278	278	/FTid=VAR_006000.
FT	VARIANT	240	240	/FTid=VAR_005967.	FT	VARIANT	278	278	P -> A (IN A BREAST TUMOR).
FT	VARIANT	241	241	S -> I (IN AN ANAL TUMOR).	FT	VARIANT	278	278	/FTid=VAR_006001.
FT	VARIANT	241	241	/FTid=VAR_005968.	FT	VARIANT	278	278	P -> H (IN A LEUKEMIA AND A LYMPHOMA).
FT	VARIANT	242	242	S -> F (IN A COLON TUMOR).	FT	VARIANT	278	278	/FTid=VAR_006002.
FT	VARIANT	242	242	/FTid=VAR_005969.	FT	VARIANT	278	278	P -> L (IN AN ESOPHAGUS AND A LUNG
FT	VARIANT	242	242	C -> F (IN A SKIN TUMOR).	FT	VARIANT	278	278	TUMOR).
FT	VARIANT	245	245	G -> A (IN A RENAL TUMOR).	FT	VARIANT	278	278	/FTid=VAR_006003.
FT	VARIANT	245	245	/FTid=VAR_005970.	FT	VARIANT	278	278	P -> S (IN OSCC).
FT	VARIANT	245	245	G -> C (IN LFS; IN OSTEOSARCOMA;	FT	VARIANT	278	278	/FTid=VAR_006004.
FT	VARIANT	245	245	COLON AND LARYNX TUMORS).	FT	VARIANT	278	278	P -> T (IN HNSC; SAME PATIENT AS MUTATION
FT	VARIANT	245	245	/FTid=VAR_005971.	FT	VARIANT	278	278	HIS-281).
FT	VARIANT	245	245	/FTid=VAR_005972.	FT	VARIANT	278	278	/FTid=VAR_006005.
FT	VARIANT	245	245	G -> D (IN LFS AND IN A COLON TUMOR).	FT	VARIANT	279	279	G -> E (IN A COLORECTAL TUMOR).
FT	VARIANT	245	245	/FTid=VAR_005973.	FT	VARIANT	280	280	/FTid=VAR_006006.
FT	VARIANT	245	245	G -> S (IN BA AND MANY TYPES OF TUMORS).	FT	VARIANT	280	280	R -> K (IN A BREAST TUMOR).
FT	VARIANT	245	245	/FTid=VAR_005974.	FT	VARIANT	280	280	R -> I (IN A COLORECTAL TUMOR).
FT	VARIANT	245	245	G -> V (IN HNSC).	FT	VARIANT	280	280	/FTid=VAR_006007.
FT	VARIANT	246	246	/FTid=VAR_005975.	FT	VARIANT	280	280	/FTid=VAR_006008.
FT	VARIANT	246	246	M -> R (IN A LIVER TUMOR).	FT	VARIANT	280	280	R -> T (IN NASOPHARYNGEAL CARCINOMA).
FT	VARIANT	246	246	/FTid=VAR_005976.	FT	VARIANT	280	280	/FTid=VAR_006009.
FT	VARIANT	246	246	M -> T (IN A LEUKEMIA AND A LYMPHOMA).	FT	VARIANT	281	281	D -> A (IN A LEUKEMIA AND A LYMPHOMA).
FT	VARIANT	246	246	/FTid=VAR_005977.	FT	VARIANT	281	281	/FTid=VAR_006010.
FT	VARIANT	246	246	M -> V (IN A MANY TYPES OF TUMORS).	FT	VARIANT	281	281	D -> E (IN MANY TYPES OF TUMORS).
FT	VARIANT	247	247	/FTid=VAR_005978.	FT	VARIANT	281	281	/FTid=VAR_006011.
FT	VARIANT	247	247	N -> W (IN A SKIN TUMOR).	FT	VARIANT	281	281	D -> G (IN MANY TYPES OF TUMORS).
FT	VARIANT	247	247	/FTid=VAR_005979.	FT	VARIANT	281	281	/FTid=VAR_006012.
FT	VARIANT	247	247	N -> I (IN A LONG TUMOR).	FT	VARIANT	281	281	D -> H (IN HNSC; SAME PATIENT AS MUTATION
FT	VARIANT	247	247	/FTid=VAR_005980.	FT	VARIANT	281	281	THR-278).
FT	VARIANT	248	248	R -> G (IN AN ENDOCRINE TUMOR).	FT	VARIANT	281	281	/FTid=VAR_006013.
FT	VARIANT	248	248	/FTid=VAR_005981.	FT	VARIANT	281	281	D -> V (IN A COLORECTAL TUMOR).
FT	VARIANT	248	248	R -> L (IN HYPOPHARYNX; LARYNX AND	FT	VARIANT	282	282	/FTid=VAR_006014.
FT	VARIANT	248	248	TONSIL TUMORS).	FT	VARIANT	282	282	R -> L (IN A BREAST TUMOR).
FT	VARIANT	248	248	/FTid=VAR_005982.	FT	VARIANT	282	282	/FTid=VAR_006015.
FT	VARIANT	248	248	R -> Q (IN LFS AND IN MANY TYPES OF	FT	VARIANT	282	282	R -> W (IN BA AND MANY TYPES OF TUMORS).
FT	VARIANT	248	248	TUMORS).	FT	VARIANT	283	283	/FTid=VAR_006016.
FT	VARIANT	248	248	/FTid=VAR_005983.	FT	VARIANT	283	283	R -> C (IN A COLON TUMOR).
FT	VARIANT	248	248	R -> W (IN LFS, BA AND IN MANY TYPES OF	FT	VARIANT	283	283	/FTid=VAR_006017.
FT	VARIANT	248	248	TUMORS).	FT	VARIANT	283	283	R -> G (IN A LUNG TUMOR).
FT	VARIANT	249	249	/FTid=VAR_005984.	FT	VARIANT	283	283	/FTid=VAR_006018.
FT	VARIANT	249	249	R -> G (IN A BREAST TUMOR).	FT	VARIANT	283	283	R -> H (IN A COLON TUMOR).
FT	VARIANT	249	249	/FTid=VAR_005985.	FT	VARIANT	283	283	/FTid=VAR_006019.
FT	VARIANT	249	249	R -> S (IN MANY TYPES OF TUMORS).	FT	VARIANT	283	283	R -> P (IN A BREAST AND A LUNG TUMOR).
FT	VARIANT	251	251	/FTid=VAR_005986.	FT	VARIANT	284	284	/FTid=VAR_006020.
FT	VARIANT	251	251	I -> N (IN HNSC).	FT	VARIANT	284	284	T -> A (IN A COLORECTAL TUMOR).
FT	VARIANT	251	251	/FTid=VAR_005987.	FT	VARIANT	284	284	/FTid=VAR_006021.
FT	VARIANT	252	252	L -> P (IN LFS AND IN MANY TYPES OF	FT	VARIANT	284	284	T -> P (IN A LUNG TUMOR).
FT	VARIANT	252	252	TUMORS).	FT	VARIANT	284	284	/FTid=VAR_006022.
FT	VARIANT	252	252	/FTid=VAR_005988.	FT	VARIANT	285	285	E -> K (IN MANY TYPES OF TUMORS).
FT	VARIANT	252	252	L -> P (IN HNSC).	FT	VARIANT	285	285	/FTid=VAR_006023.
FT	VARIANT	252	252	/FTid=VAR_005989.	FT	VARIANT	285	285	E -> Q (IN AN UTERUS TUMOR).
FT	VARIANT	252	252	E -> D (IN A COLORECTAL TUMOR).	FT	VARIANT	285	285	/FTid=VAR_006024.
FT	VARIANT	252	252	/FTid=VAR_005990.	FT	VARIANT	285	285	E -> V (IN A LIVER TUMOR).
FT	VARIANT	252	252	E -> K (IN LFS AND IN BREAST CANCER	FT	VARIANT	285	285	/FTid=VAR_006025.
FT	VARIANT	252	252	CELLS).	FT	VARIANT	285	285	E -> A (IN LFS).
FT	VARIANT	252	252	/FTid=VAR_005991.	FT	VARIANT	285	285	/FTid=VAR_006026.
FT	VARIANT	252	252	V -> L (IN LFS).	FT	VARIANT	285	285	E -> D (IN A LIVER TUMOR).
FT	VARIANT	252	252	/FTid=VAR_005992.	FT	VARIANT	285	285	/FTid=VAR_006027.
FT	VARIANT	252	252	R -> C (IN LFS; IN COLORECTAL TUMOR AND	FT	VARIANT	285	285	E -> G (IN A COLON, A LUNG, A HEAD AND A
FT	VARIANT	252	252	OSCC).	FT	VARIANT	285	285	NECK TUMOR).
FT	VARIANT	252	252	/FTid=VAR_005993.	FT	VARIANT	285	285	

